Figure 1A

200

166
165

DIGITIZER

Monitor

207
Local Area Network

Remote Computer

CPU

211

212

Wide Area 213 Network

209

213

Network Interface

214

Serial Port Interface

Modem

Keyboard

Application Programs

296

215

201

206

Video Adapter

208

System Bus

Optical Drive Interface

294

291

Mouse

202

Processing Unit

210

230

Magnetic Disk Drive Interface

293

280

290

292

Hard Disk Drive Interface

292

270

System Memory

220

(ROM) 240

BIOS 260

(RAM) 250

Operating System 295

Application Programs 296

Other Program Modules 297

Program Data 298

Operating System 295

Application Programs 296

Other Program Modules 297

Program Data 298

100

101

102

111

109

Treasure Island

103

Treasure Island

Chapter 6

The Captain's Papers

We rode hard all the way till we
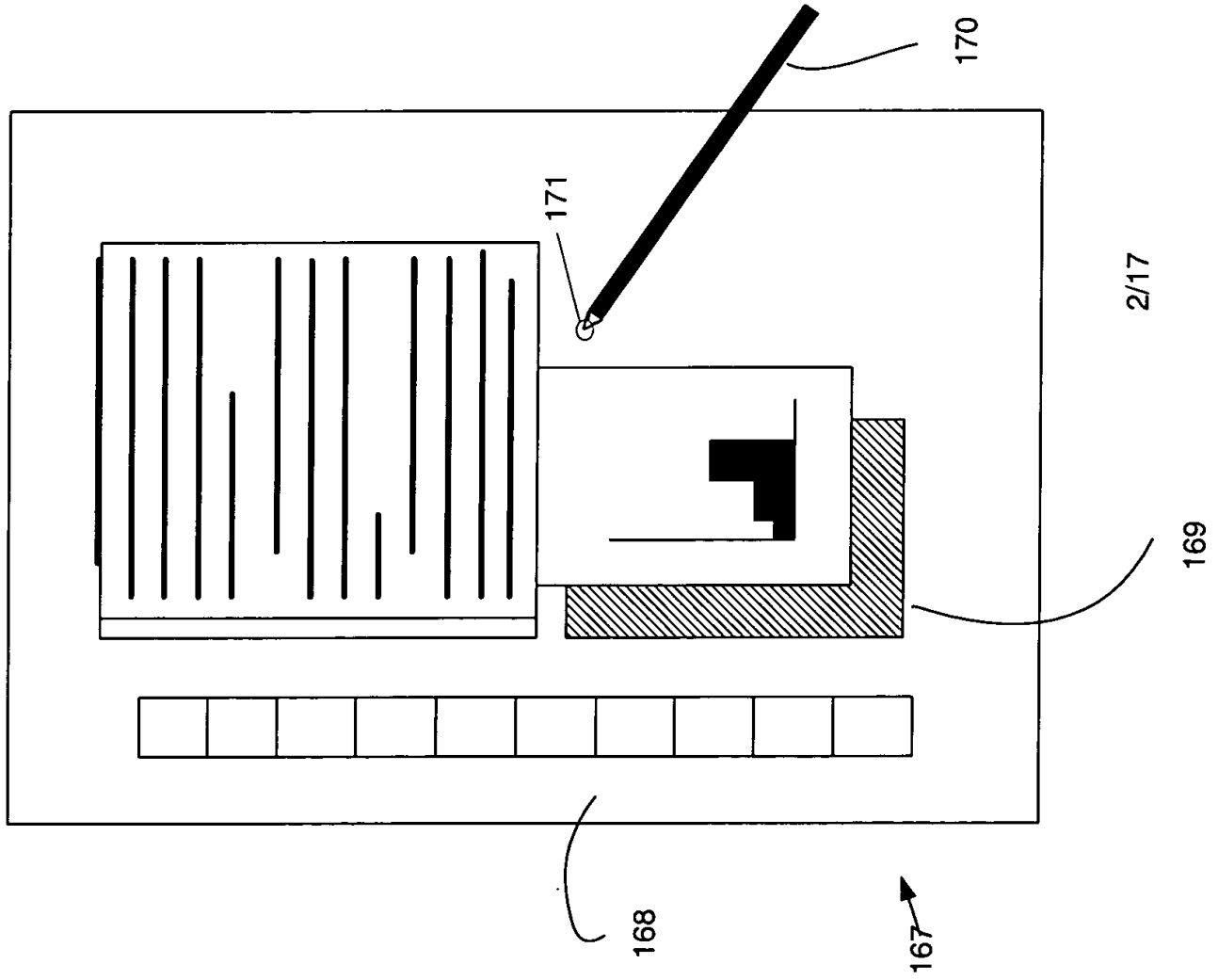drew up before …

104

105

106

107

108

110

Figure 2

Figure 3A

```
01010101 01010101
01010101 10101010
00110011 11001100
00010001 10001000
```

Figure 3B
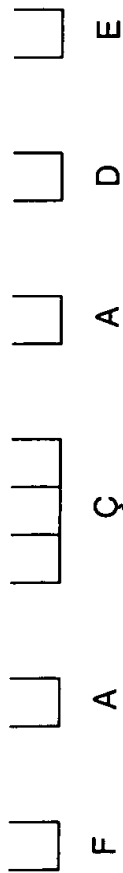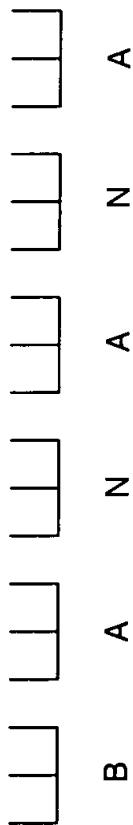
```
01010101
01010101
01010101
10101010
```

Figure 4

B   A   N   A   N   A

F   A   Ç   A   D   E

Figure 5

User Input To Select Object — 501

Determine Which Object Selected — 502

Add Annotation — 502A

Determine Byte No. Of First Byte Of Object — 503

Open File For Annotation — 504

Place Object File Position In Header Of Annotation — 505

Figure 6

Navigate to Page — 601

Determine File Position of First Byte of First Object on Page — 602

Store File Position In Memory — 603

Navigate to New Page

Select Object or Navigate — 604

Select Object

Determine Page Position of Selected Object On Page — 605

Add Page Position of Selected Object and File Position of First Object On Page — 606

Associate Annotation with File Position of Object — 607

Figure 7

```
                    701
                     |
              ┌──────────────┐
              │  Navigate to │
              │     Page     │
              └──────┬───────┘
                     │
                     ▼
              ┌──────────────────┐
              │ Determine File   │
              │ Position of      │
              │ First Object on  │
              │ Page             │
              └──────┬───────────┘
              702    │
                     ▼
              ┌──────────────────┐
              │ Determine File   │
              │ Position of      │
              │ Last Object on   │
              │ Page             │
              └──────┬───────────┘
              703    │
                     ▼
                    ◇
              Search Annotations for File
              Position Between First Object's
              File Position and Last Object's
                    File Position
                   704
```

No → Await User Input   705

Yes → Display Annotation With Object On Page   706

Figure 8B

Document — 809

Header
Type — 805
FP
803
808
804
807
Annotation — 806

801

Figure 8A

Document — 802

Header
Type — 805
FP — 804
803
Annotation — 806

807

Figure 9

900

Annotations

901

View

904

903

Notes

902

Figure 10
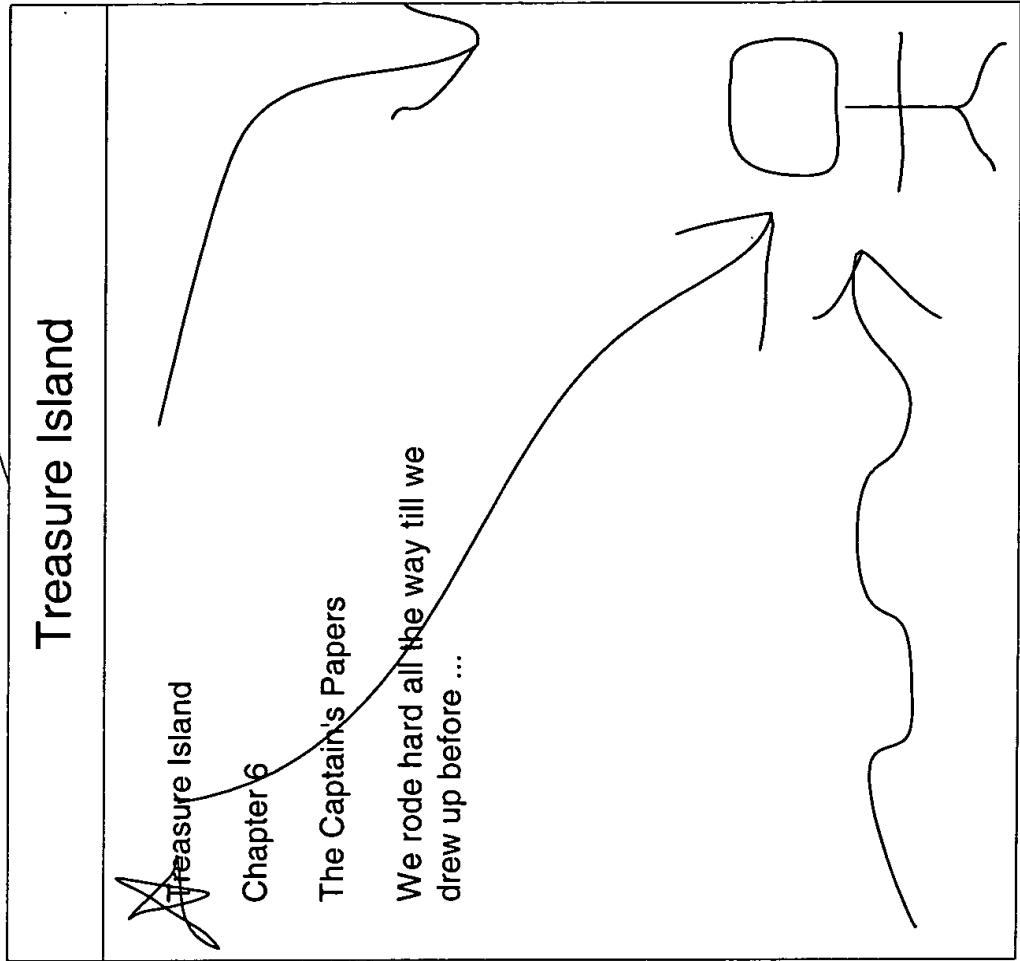
П О Т Е Ζ □ " 8 8 ⌷ □ 8 Ζ Е □

Business @ the Speed of Thought ▾   ◂ • 88 ▸
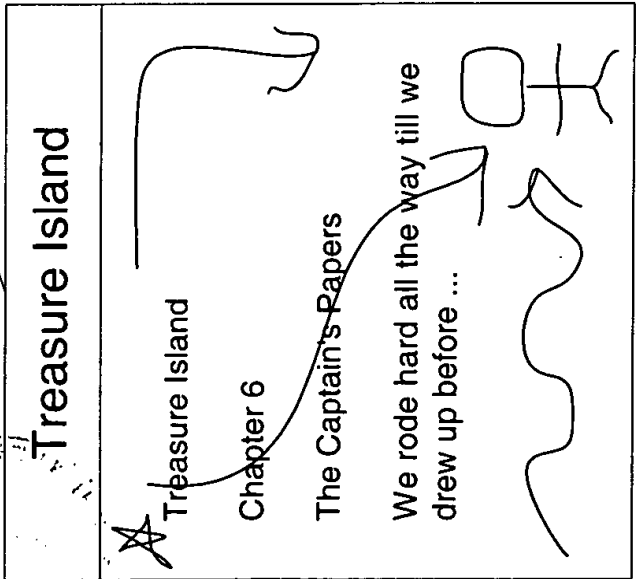
With my insistence on eliminating paperwork, I must sound "anti-paper." I am against paper forms, but even I still print out long electronic documents I want to read and annotate. Most people, when they're trying to organize a long document, like to spread the pages out on a table so that they can see them all at once — hard to do with a PC! Until we get a breakthrough in flat-screen technology — and furious research is going on at Xerox, the MIT Media Lab, Kent State, Microsoft and other academic and corporate research sites in the United States and Japan – books and magazines still can't be beat for readability and portability.

High-quality displays are a necessity in the information-rich future. Microsoft showed in late 1998, a technology code-named ClearType that allows color screens to display text dramatically better than before. Combining this with improved hardware will be revolutionary. Some future screens will be flexible so that you can roll up or fold the display and take it with you, like a newspaper. Other screens will have the computer circuitry embedded in them so that an entire PC could be as thin as the display part of a current laptop. One new technology enables a screen to retain its image after

1101

Figure 11

1203

1204

▼ InkAnnotations.doc

Handwriting shares some properties with text, and can even be placed 'in-line' with it, but handwriting and sketches must also be able to flow freely where they won't inadvertently change the underlying document's layout).

This is important both to avoid degrading documents from their author's intent, and to capture thoughts simply (without demanding the user's undivided attention). Thus while in-line ink flows where a user could expect to be able to type on a displayed document page, we also need Ink Annotations that can flow wherever one would expect to be able to write on that page.

Handwriting shares some properties with text, and can even be placed 'in-line' with it, but handwriting and sketches must also be able to flow freely (rather than always go in-line where they could inadvertently change the underlying document's layout).

This is important both to avoid degrading documents from their author's intent, and to capture thoughts simply (without demanding the user's undivided attention).

◄ 2 of 8 ►

1201

1202

1205

▼ InkAnnotations.doc

Handwriting shares some properties with text, and can even be placed 'in-line' with it, but handwriting and sketches must also be able to flow freely (rather than always go in-line where they could inadvertently change the underlying document's layout).

This is important both to avoid degrading documents from their author's intent, and to capture thoughts simply (without demanding the user's undivided attention). Thus while in-line ink flows where a user could expect to be able to type on a displayed document page, we also need Ink Annotations that can flow wherever one would expect to be able to write on that page.

Handwriting shares some properties with text, and can even be placed 'in-line' with it, but handwriting and sketches must also be able to flow freely (rather than always go in-line where they could inadvertently change the underlying document's layout).

This is important both to avoid degrading documents from their author's intent, and to capture thoughts simply (without demanding the user's undivided attention).

◄ 2 of 8 ►

Figure 12

FOTF20" 88205760

▾ InkAnnotations.doc

1302

＊

1303

Handwriting shares some properties with text, and can even be placed 'in-line' with it, but handwriting and sketches must also be able to flow freely (rather than *This ink's over text* where they could inadvertently change the underlying document's layout).

1304

This is important both to avoid degrading documents from their author's intent, and to capture thoughts simply (without demanding the user's undivided attention). Thus while in-line ink flows where a user could expect to be able to type on a displayed document *This ink's in-line with text* page, we also need Ink Annotations that can flow wherever one would expect to be able to write on that page.
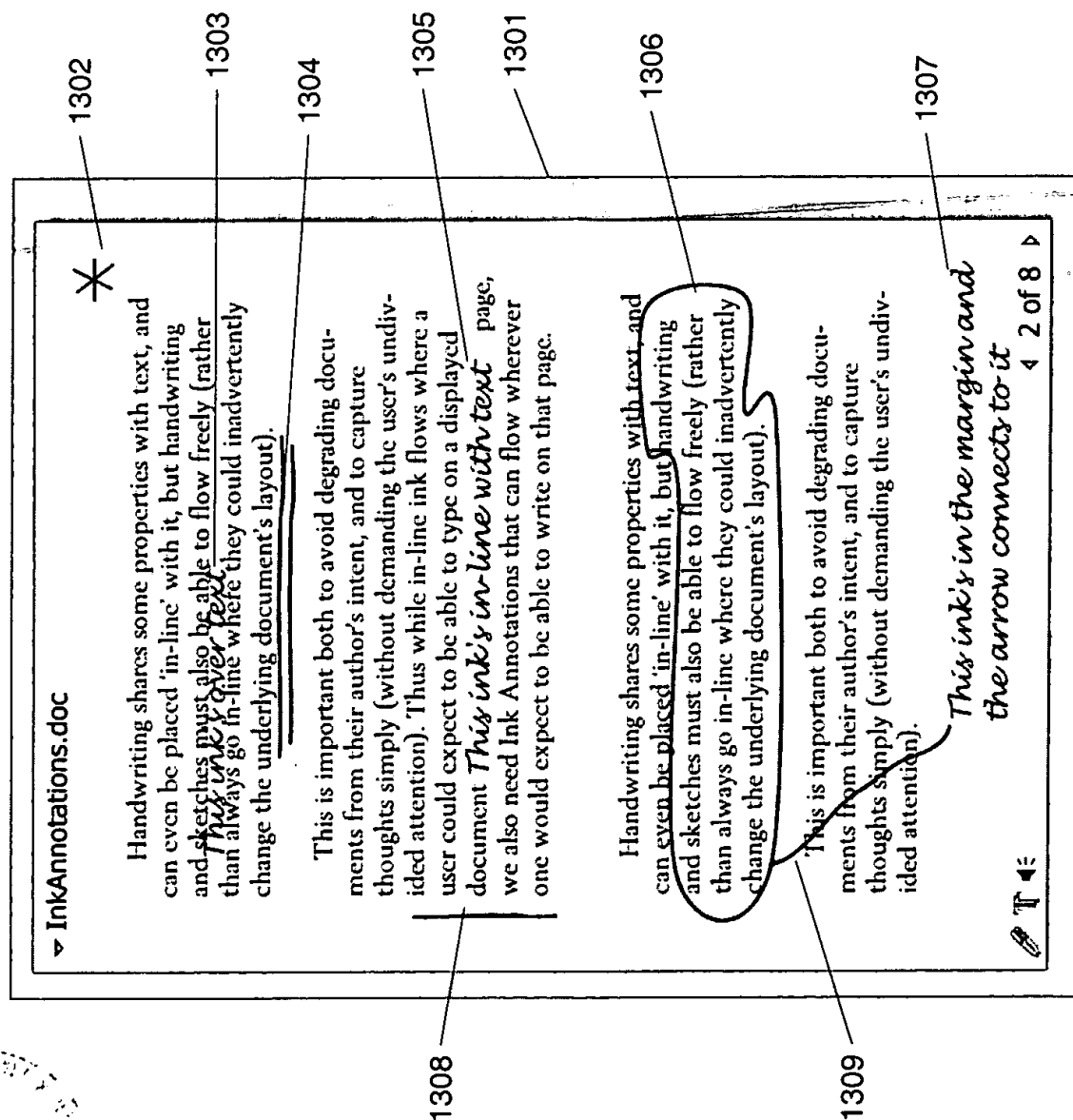
1305

1301

1308

1306

Handwriting shares some properties with text, and can even be placed 'in-line' with it, but handwriting and sketches must also be able to flow freely (rather than always go in-line where they could inadvertently change the underlying document's layout).

This is important both to avoid degrading documents from their author's intent, and to capture thoughts simply (without demanding the user's undivided attention).

1309

This ink's in the margin and the arrow connects to it

1307

✎ T ▾

◄ 2 of 8 ▷

14/17

Figure 13

1402

1404

▼ InkAnnotations.doc

Handwriting shares some properties with text, and can even be placed 'in-line' with it, but handwriting and sketches must also be able to flow freely (rather than always go in-line where they could inadvertently change the underlying document's layout).

This is important both to avoid degrading documents from their author's intent, and to capture thoughts simply (without demanding the user's

◄ 2 of 8 ►

1401
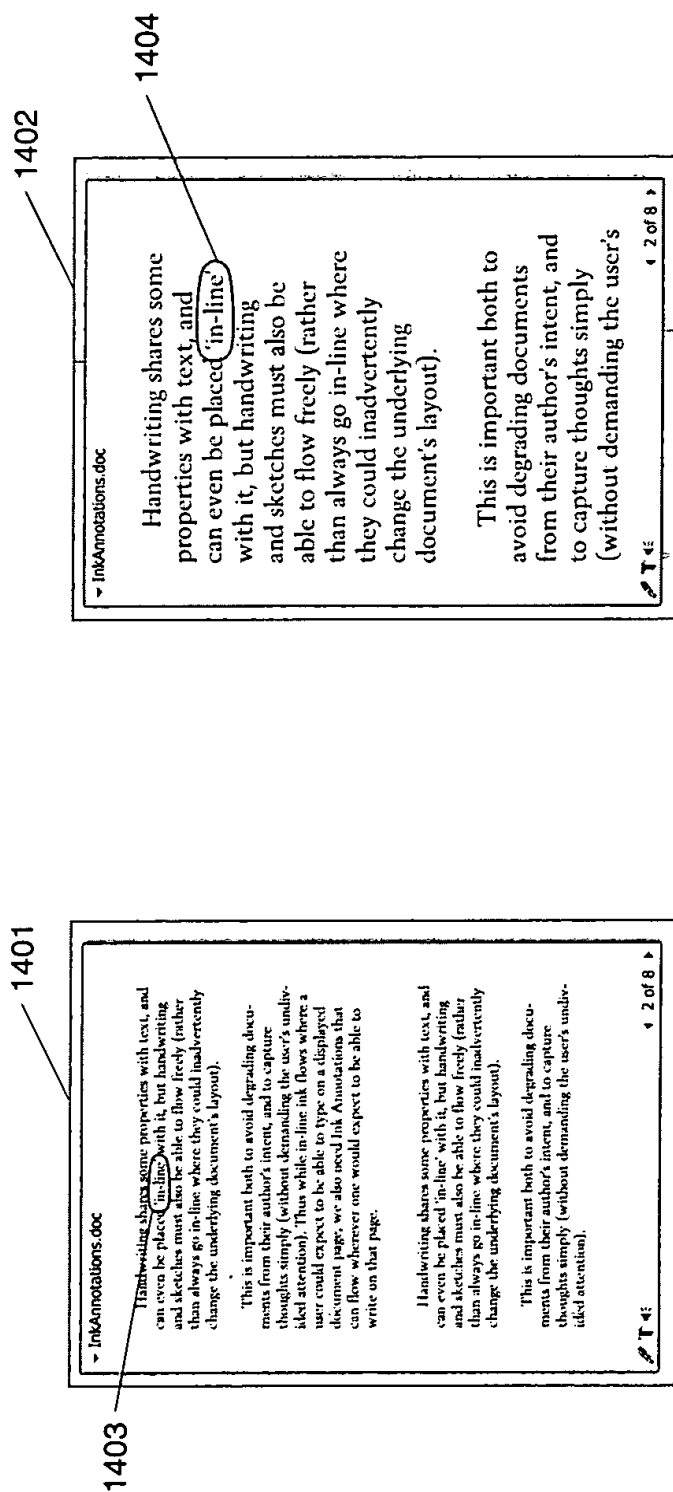
▼ InkAnnotations.doc

Handwriting shares some properties with text, and can even be placed 'in-line' with it, but handwriting and sketches must also be able to flow freely (rather than always go in-line where they could inadvertently change the underlying document's layout).

This is important both to avoid degrading documents from their author's intent, and to capture thoughts simply (without demanding the user's undivided attention). Thus while in-line ink flows where a user could expect to be able to type on a displayed document page, we also need Ink Annotations that can flow wherever one would expect to be able to write on that page.

Handwriting shares some properties with text, and can even be placed 'in-line' with it, but handwriting and sketches must also be able to flow freely (rather than always go in-line where they could inadvertently change the underlying document's layout).

This is important both to avoid degrading documents from their author's intent, and to capture thoughts simply (without demanding the user's undivided attention).

◄ 2 of 8 ►

1403

Figure 14

1502

▾ InkAnnotations.doc

Handwriting shares some properties with text, and can even be placed 'in-line' with it, but handwriting and sketches must also be able to flow freely (rather than always go in-line where they could inadvertently change the underlying document's layout).

This is important both to avoid degrading documents from their author's intent, and to capture thoughts simply (without demanding the user's undivided attention). Thus while in-line ink flows where a user could expect to be able to type on a displayed document page, we also need Ink Annotations that can flow wherever one would expect to be able to write on that page.

Handwriting shares some properties with text, and can even be placed 'in-line' with it, but handwriting and sketches must also be able to flow freely (rather than always go in-line where they could inadvertently change the underlying document's layout).

This is important both to avoid degrading documents from their author's intent, and to capture thoughts simply (without demanding the user's undivided attention).

1504

1501

▾ InkAnnotations.doc

Handwriting shares some properties with text, and can even be placed 'in-line' with it, but handwriting and sketches must also be able to flow freely (rather than always go in-line where they could inadvertently change the underlying document's layout).

Handwriting shares some properties with text, and can even be placed 'in-line' with it, but handwriting and sketches must also be able to flow freely (rather than always go in-line where they could inadvertently change the underlying document's layout).

This is important both to avoid degrading documents from their author's intent, and to capture thoughts simply (without demanding the user's undivided attention).
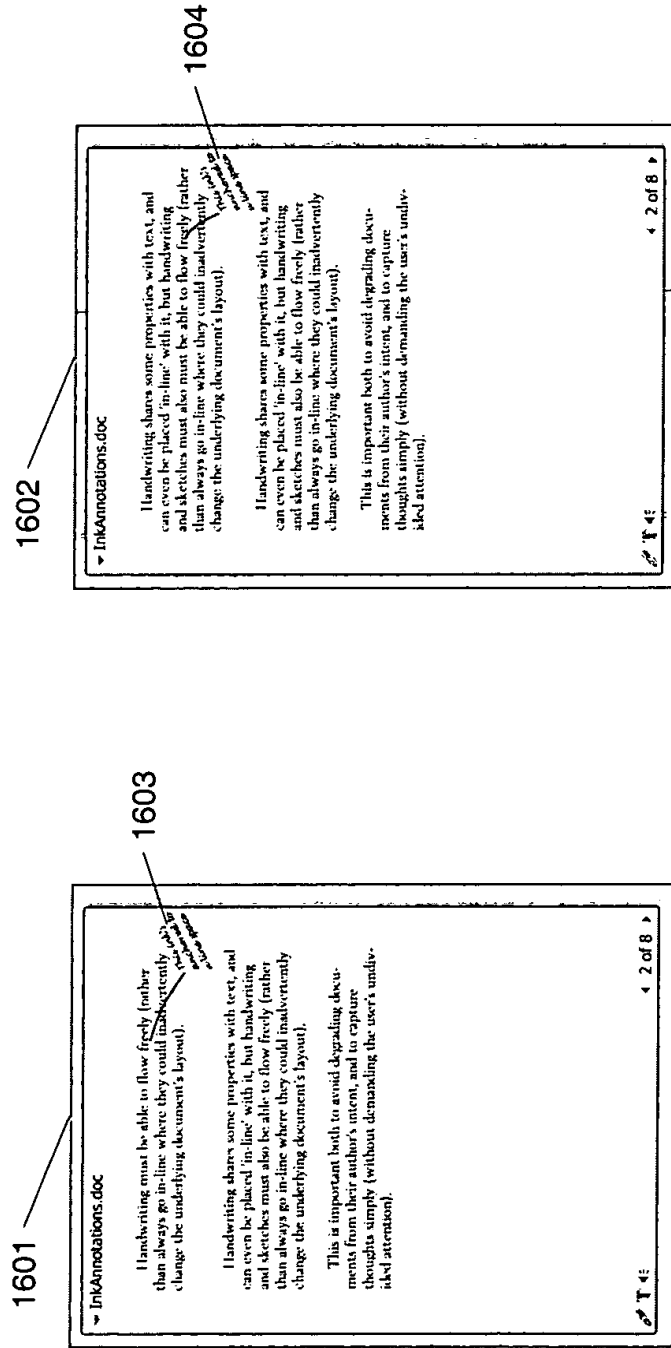
1503

Figure 15

Figure 16